

Remarks

The Examiner has rejected Claims 7-12 under 35 U.S.C. 112, second paragraph, as being indefinite. Claims 7-9 have been amended to overcome these rejections. Entry of the Amendments, and favorable consideration thereof is earnestly requested.

The Examiner has rejected Claims 1-12 under 35 U.S.C. 102(b) as being anticipated by the dryer structure of Dossaji et al. (5,961,698). Applicant respectfully submits that these rejections are traversed.

The present invention concerns a modular air supply system for a vehicle comprising a base unit 1 forming an interface to different modules of the air supply system. Such modules may include an air treatment module 2, an electronic drier unit 3 and an air distribution module 13. Claims 1-13 require "an electronic drier module connected to the base unit and that the electronic drier module is connected to a CAN-bus of the vehicle," while Claim 14 requires that "the electronic drier module is controlled by a CAN-bus of the vehicle."

The electronic drier module 3 comprises a pressure sensor, a solenoid valve that governs the unloading valve of the base unit 1, a printed circuit board and an air signal outlet. A function of the electronic drier module 3 is to control the regeneration of the desiccant in the cartridge of the air treatment module 2. (para. 28, ll 1-4). The electronic drier module 3 collects information over the CAN-bus 14 (Control Area Network) of the vehicle, giving and receiving information regarding ambient temperature, pressure, engine RPM, engine torque, engine speed, vehicle speed and provides possible diagnostics. (para. 28, ll 11-14). This information is used to make an intelligent loading of the system tanks and regeneration of the desiccant of the air dryer. (para. 31, ll 3-4).

Dossaji discloses a twin tower system for air cleaning and drying systems for air compressors in which a pair of desiccant containing chambers or towers 12 are

provided. Each tower alternates back and forth between operation in drying mode and in recycle mode. Control valves 34, operated by solenoid valves 38 which are operated by a timer are provided to automatically switch the flow to reverse these flow directions so that after a defined time period the cycles are reversed so that in effect a continuous operation is achieved with each tower alternately operating in a drying mode thereby permitting moisture to collect within the desiccant media while the other tower is in recycle mode removing the collected moisture from the desiccant material or media.

There is no disclosure, teaching or suggestion in Dossaji of an electronic drier module connected to a base unit and that the electronic dryer module is connected to a CAN-bus of the vehicle. Rather, valves 34, provided upstream from the towers, allow by electrical activation, one tower to be loaded while the other is regenerating. In Dossaji, a part of the air that has passed through one dryer cartridge is used to regenerate the other dryer cartridge during the loading phase. This is a completely different function that the single tower of the present invention.

New Claims 13 and 14 have been added to more clearly define the invention and to further differentiate the present invention from the cited reference. Claim 13 relates to a modular single tower air supply system for a vehicle. Claim 14 relates to a modular air supply system for a vehicle where an electronic drier module is controlled by a CAN-bus of the vehicle. Entry of the new Claims and favorable consideration thereof is earnestly requested.

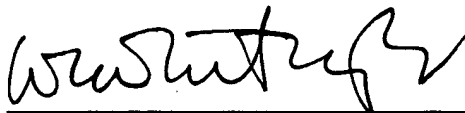
The present invention is based on a single tower principle. In a single tower system, the compressor has to be relieved in order to allow regeneration of a dryer cartridge. (Dossaji, Col. 2, ll 61-63). Also, the electronic dryer module, placed after the dryer in the system, controls system pressure and the amount of air to be regenerated from the system based on input from the CAN-bus. This is structurally and functionally different from the Dossaji invention. In fact, Dossaji specifically notes that aspects of the one tower system are disadvantageous. (Dossaji, Col. 2, ll 61-63).

Dossaji specifically teaches away from the disclosure of the present invention in describing the advantages of the two tower system. "This unique system obviously has a greater moisture removing capability and also avoids the need to have the source of unpurified air cycled-off in order to purge the desiccant material of the moisture it has accumulated, and thereby eliminate the need to temporarily deprive the pneumatic system of a steady supply of clean and dried compressed air while the compressor is turned off." (Col. 2, ll. 31-37.) Further there is no disclosure, teaching or suggestion that the drying system relies on input from the CAN-bus of the vehicle. Accordingly, applicant respectfully submits that the rejections are traversed.

The editorial change requested by the Examiner in para. [00026], line 10 has been made.

For the reasons described above, Applicant respectfully submits that all pending Claims, Claim 1-14 are in condition for allowance.

Respectfully submitted,



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